

**Iowa Department of Natural Resources  
Title V Operating Permit**

**Name of Permitted Facility:**      **Keokuk Steel Castings, Inc.,  
A Matrix Metals LLC Company**  
**Facility Location:**                **240 Royal Road & 3972 Main Street  
Keokuk, IA 52632**

**Air Quality Operating Permit Number:** **04-TV-012-M001**  
**Expiration Date:** **August 3, 2009**

**EIQ Number:** **92-3000**  
**Facility File Number:** **56-01-025**

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**Responsible Official**

**Roger Courtney**  
**Vice President**  
**3972 Main Street**  
**Keokuk, IA 52632**  
**Phone #: (319) 524-2661**

**Permit Contact Person for the Facility**

**Dale Weathersby**  
**Director of Safety**  
**3972 Main Street**  
**Keokuk, IA 52632**  
**Phone #: (319) 526-8280**

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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

**For the Director of the Department of Natural Resources**

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Douglas A. Campbell, Supervisor of Air Operating Permits Section

Date

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## Abbreviations

acfm.....	actual cubic feet per minute
CFR.....	Code of Federal Regulation
CE .....	control equipment
CEM.....	continuous emission monitor
°F .....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP.....	emission point
EU .....	emission unit
gr./dscf .....	grains per dry standard cubic foot
gr./100 cf .....	grains per one hundred cubic feet
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NSPS .....	new source performance standard
ppmv .....	parts per million by volume
lb./hr .....	pounds per hour
lb./MMBtu .....	pounds per million British thermal units
SCC .....	Source Classification Codes
scfm.....	standard cubic feet per minute
SIC .....	Standard Industrial Classification
TPY .....	tons per year
USEPA .....	United States Environmental Protection Agency

### **Pollutants**

PM.....	particulate matter
PM <sub>10</sub> .....	particulate matter ten microns and less in diameter
SO <sub>2</sub> .....	sulfur dioxide
NO <sub>x</sub> .....	nitrogen oxides
VOC .....	volatile organic compound
CO .....	carbon monoxide
HAP.....	hazardous air pollutant
HCN .....	hydrogen cyanide

# I. Facility Description and Equipment List

Facility Name: Keokuk Steel Castings, A Matrix Metals LLC Company

Permit Number: 04-TV-012-M001

Facility Description: Steel Foundries (except Investment), (SIC 3325), (NAICS 331513)

## Equipment List

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
01	01	New Sand Tank
03	03	Sand Heaters
	04	Sand Heaters
	07	Mold Mixer
	30a	Reclaim Tank
	30b	New Sand Receiving Tank
05	08	Isocure Core Making
	10	Isocure Core Making
09B	17	Electric Arc Furnace
10A	14	Mold Making
	20	Ladle Preheat
	21	Pouring
	21A	Cooling
	26	Burn Rail
10B	14	Mold Making
	20	Ladle Preheat
	21	Pouring
	21A	Cooling
	26	Burn Rail
10C	14	Mold Making
	20	Ladle Preheat
	21	Pouring
	21A	Cooling
	26	Burn Rail

<b>Emission Point Number</b>	<b>Associated Emission Unit Number(s)</b>	<b>Associated Emission Unit Description</b>
10D	14	Mold Making
	20	Ladle Preheat
	21	Pouring
	21A	Cooling
	26	Burn Rail2
10E	14	Mold Making
	20	Ladle Preheat
	21	Pouring
	21A	Cooling
	26	Burn Rail
11FUG	36	Special Products Grinding
	37	Weld Stations
12	22	Shakeout
	27	Sand Transfer
	28	Sand Conditioner
	35	Turntable Blast
14	23	Large Casting Shakeout
	24	Tumbler (70 cu ft)
15	25	Tumbler (34 cu ft)
17	31	Kwic Arc
<b>CASTING HEAT TREAT</b>		
18-1	32	Casting Heat Treat (Oven #6511)
18-2	32	Casting Heat Treat (Oven #6511)
18-3	32	Casting Heat Treat (Oven #6513)
18-4	32	Casting Heat Treat (Oven #6513)
18-5	32	Casting Heat Treat (Oven #6514)
18-6	32	Casting Heat Treat (Oven #6514)
50-8	44	Casting Heat Treat (Oven #6515)

<b>Emission Point Number</b>	<b>Associated Emission Unit Number(s)</b>	<b>Associated Emission Unit Description</b>
19	33	Walk-In Blast
	34	Tumbler - (72 cu ft)
20	38A	Resin Bulk Storage Tanks
	38B	Resin Bulk Storage Tanks
21	40	Pattern Shop - Wood Saws
<b>HAWKEYE &amp; CARBIDE HEATING</b>		
23	43	Hawkeye Heating
<b>SCC INTERNAL EXHAUST</b>		
25	46	Weld Repair
	49	Walk-In Blast
	51	Casting Welding
29	39	Core Spray Booth
33	56	Mold Pouring
	57	Mold Cooling
	58	Mold Shakeout
	63	Induction Furnace
34	48	Sand Tank #2
SCC01	SCC01	Tumble Blast (70 cu ft)
B2	SCC Boiler	Boiler

<b>Emission Point Number</b>	<b>Associated Emission Unit Number(s)</b>	<b>Associated Emission Unit Description</b>
<b>FUGITIVE SOURCES</b>		
04 FUG	05	Isocure Mixer
	06	Airset Mixer
08 FUG	16	Scrap & Charge Handling
24 FUG	45	Casting Grinding
	47	Casting Salvage
	50	Casting Grinding

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**Insignificant Equipment List**

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<b>Insignificant Emission Unit Number</b>	<b>Insignificant Emission Unit Description</b>
12	Shell Core Particulate
13	Shell Core Combustion
18	Induction Furnaces
41	Maintenance Welding
53	Haul Road
60	Diesel Oil Tank (500 gallons)
61	Isopropyl Alcohol Tanks (2x250 gallons)
62	Safety Kleen Parts Washers (35 gallons)

## II. Plant-Wide Conditions

Facility Name: Keokuk Steel Castings, A Matrix Metals LLC Company  
Permit Number: 04-TV-012-M001

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

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### Permit Duration

The term of this permit is: five (5) years  
Commencing on: August 4, 2004  
Ending on: August 3, 2009

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

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### Emission Limits

*Unless specified otherwise in the Emission Point-Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:*

Opacity (visible emissions): 40% opacity  
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume  
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter (state enforceable only)<sup>1</sup>:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).  
Authority for Requirement: 567 IAC 23.3(2)"a" (as revised 7/21/1999)

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<sup>1</sup> Pending approval into Iowa's State Implementation Plan (SIP), paragraph 567 IAC 23.3(2)"a" (as revised 7/21/1999) is considered *state enforceable only*.



### Particulate Matter <sup>2</sup>:

The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.

Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

**Fugitive Dust:** Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

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### **Compliance Plan**

*The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.*

Unless otherwise noted in Section III of this permit, Keokuk Steel Castings is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, Keokuk Steel Castings shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

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<sup>2</sup> Paragraph 567 IAC 23.3(2)"a" (prior to 7/21/1999) is the general particulate matter emission standard currently in the Iowa SIP.

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## **Section 112(j) of the Clean Air Act (MACT Hammer)**

Keokuk Steel Castings also appears to be subject to the upcoming MACT standard for Industrial, Commercial and Institutional Boilers and Process Heaters, 40 CFR 63 Subpart DDDDD. Keokuk Steel Castings is not required to submit a Part 2 MACT application because Subpart DDDDD was signed prior to February 26, 2004.

Authority for Requirement: 40 CFR 63.52; 567 IAC 23.1(4)"b"(2)

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## **Iron and Steel Foundry NESHAP – 40 CFR 63 Subpart EEEEE**

Keokuk Steel Castings shall comply with all applicable requirements of 40 CFR 63 Subpart EEEEE National Emission Standards for Iron and Steel Foundries.

Information regarding the compliance dates and selected work product standards have been included below. This permit does not contain a complete list of Subpart EEEEE requirements at this time.

### §63.7683 When do I have to comply with this subpart?

- (a) Except as specified in paragraph (b) of this section, if you have an existing affected source, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than April 23, 2007.
- (b) If you have an existing affected source, you must comply with the work practice standards in §63.7700(b) or (c), as applicable, no later than April 22, 2005.
- (c) If you have a new affected source for which the initial startup date is on or before April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by April 22, 2004.
- (d) If you have a new affected source for which the initial startup date is after April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.
- (e) If your iron and steel foundry is an area source that becomes a major source of HAP, you must meet the requirements of §63.6(c)(5).
- (f) You must meet the notification and schedule requirements in §63.7750. Note that several of these notifications must be submitted before the compliance date for your affected source.

§63.7700 What work practice standards must I meet?

(b) You must prepare and operate at all times according to a written certification that the foundry purchases and uses only certified-metal ingots, pig iron, blister, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics, or organic liquids.

(c) You must prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry. This scrap selection and inspection plan is subject to approval by the Administrator. You must keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties. You must provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.

- (1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section.
  - (i) For scrap charged to a scrap preheater, electric arc metal melting furnace, or electric induction metal melting furnaces, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids; or
  - (ii) For scrap charged to a cupola metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of plastic, and a program to ensure the scrap materials are drained of free liquids.
- (2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.
- (3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.
  - (i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.
  - (ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.
  - (iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.

Authority for Requirement: 40 CFR 63 Subpart EEEEE – Iron and Steel Foundries

### III. Emission Point-Specific Conditions

Facility Name: Keokuk Steel Castings, A Matrix Metals LLC Company  
Permit Number: 04-TV-012-M001

#### Emission Point ID Number: 01

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
01	01	New Sand Tank	Silica Sand	25 tons/hr	CE-01: Cartridge Filter

#### Applicable Requirements

##### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 35.4 lb./hr<sup>(1)</sup>

<sup>(1)</sup> based on a process weight rate of 25 tons/hr

Authority for Requirement: Iowa DNR Construction Permit 76-A-100  
567 IAC 23.3(2)"a"

##### Periodic Monitoring Requirements

*The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.*

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

#### Cartridge Filter System Agency Operation and Maintenance Plan

##### Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation, and necessary follow-up action to return

operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement.

If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits, new indicator ranges must be set for monitoring, and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, the facility must submit a compliance schedule to the department within 60 days of obtaining test results. This schedule should outline the corrective action planned by the facility, and also include a plan to demonstrate compliance once corrective measures have been completed.

### **General**

- Periodic Monitoring is not required during periods of time greater than one day in which the source does not operate.

### **Weekly**

- Visible emissions shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed this would be an exceedence not a violation and action will be taken as soon as possible, but no later than eight hours. If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately two-hour intervals throughout the day. If unsuccessful that day due to weather, an observation shall be made the following day.

Maintain a written record of the observation and any action resulting from the observation.

### **Monthly**

- Check the cleaning sequence of the cartridge filter system.
- Pulse jet baghouse - check the air delivery system
- Check the hopper functions and performance.
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

### **Quarterly**

- Thoroughly inspect cartridge filters for leaks and wear. (Look for obvious holes or tears in the cartridge filters.)
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours. Cartridge filter replacement should be documented by identifying the date, time and location of the cartridge filter in relationship to the other cartridge filters. The location should be identified on an overhead drawing of the cartridge filter layout in the cartridge filter system.

Maintain a written record of the inspection and any action resulting from the inspection.

#### **Semiannual**

- Every six months, inspect all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.
- If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

#### **Record Keeping and Reporting**

Maintenance and inspection records will be kept for five years and be available upon request.

#### **Quality Control**

- The filter equipment will be operated and maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts shall be kept.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 03 (Sand Reclaim System)

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	CE ID & Description
03	03	Sand Heaters	Silica Sand	20	CE-02: Baghouse
	04	Sand Heaters	Silica Sand	20	
	07	Mold Mixer	Silica Sand	20	
	30a	Reclaim Tank	Sand	20	
	30b	New Sand Receiving Tank	Sand	300 tons & 30 tons sand/hr	

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the following specified levels.*

Pollutant: Opacity<sup>(1)</sup>

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 77-A-176-S4  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.20 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 77-A-176-S4

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr./dscf

Authority for Requirement: Iowa DNR Construction Permit 77-A-176-S4  
567 IAC 23.4(6)

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

- The throughput of the sand reclaim system shall not exceed 17,581 lb of sand/hr.

### Reporting & Record keeping:

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

- The total throughput of the sand reclaim system per hour. (NOTE: This may be calculated by the facility by dividing the amount of sand used per day by the sand reclaim system by the hours of operation for the sand reclaim system on that day.)

Authority for Requirement: Iowa DNR Construction Permit 77-A-176-S4

### Emission Point Characteristics

*The emission point shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
3	42.3	Unobstructed Vertical	21.5 x 19.0	75	3,400 scfm	77-A-176-S4

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### Periodic Monitoring Requirements

*The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.*

#### **Stack Testing:**

Pollutant – PM<sub>10</sub>

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – 201A with 202, 40 CFR 51<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

Pollutant – Particulate Matter

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"



**Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒**

**Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐**

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 05

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
05	08	Isocure Core Making	Silica Sand	45 tons/hr	CE-14: DES-68 Scrubber
	10	Isocure Core Making	Isocure Resin	4,600 tons/yr	

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 43.6 lb./hr<sup>(1)</sup>

<sup>(1)</sup> based on a process weight rate of 45 tons/hr

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13.0 tons/year

Authority for Requirement: Iowa DNR Construction Permit 96-A-695

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### Process throughput:

- The resin used in the core machines shall not exceed 4,600 tons per year.

#### Control equipment parameters:

- The scrubber must be maintained according to manufacturer's instructions and specifications to achieve a minimum VOC removal efficiency of 95%.

#### Reporting & Record keeping:

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

1. VOC and HAP content in lb/lb of resin for each material used in the machines. The weight fraction of each HAP should be shown separately.
2. Monthly material usage in lb/month.

3. Annual material usage and emissions shall be determined on a rolling 12-month basis for each month of operation.
4. Maintenance of the scrubber.

Authority for Requirement: Iowa DNR Construction Permit 96-A-695

### **Emission Point Characteristics**

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
5	42	---	22 x 32	72	10,000 scfm	96-A-695

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### **Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

#### **Stack Testing:**

Pollutant – Particulate Matter

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?**

Yes ☒ No ☐

**Facility Maintained Operation & Maintenance Plan Required?**

Yes ☐ No ☒

## **Scrubber Agency Operation and Maintenance Plan**

### **Monitoring Guidelines**

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation, and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement.

If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits, new indicator ranges must be set for monitoring, and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, the facility must submit a compliance schedule to the department within 60 days of obtaining test results. This schedule should outline the corrective action planned by the facility, and also include a plan to demonstrate compliance once corrective measures have been completed.

### **Monitoring Methods & Corrective Actions**

#### **General**

- Periodic Monitoring is not required during periods of time greater than one day in which the source does not operate.
- If pressure drop levels are occurring outside the normal operating range, one of the following steps should be taken:
  1. The control equipment causing the problem shall be repaired in an expeditious manner. An expeditious manner is the time necessary to determine the cause of the problem and to correct it.
  2. The process generating the emissions shall be shut down within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment.

#### **Daily**

- Check and document the pressure drop across the scrubber. If the pressure drop falls out of the normal operating range, (0 – 2 inches water), corrective action will be taken within eight hours to return the pressure drop to normal.
- Conduct observations of the stack and areas adjacent to the stack to determine if droplet reentrainment is occurring from an improperly operating mist eliminator. The signs of droplet reentrainment may include fallout of solid-containing droplets, discoloration of the stack and adjacent surfaces, or a mud lip around the stack. If droplet reentrainment is occurring, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

**Weekly**

- Check liquid pressure gauges on supply headers to the scrubber to monitor for problems such as nozzle pluggage, header pluggage, and nozzle erosion. Pluggage problems are indicated by higher than normal pressures and erosion problems are indicated by lower than normal pressures. If the liquid pressure is outside the normal operating range, (0 – 2 inches water), corrective action will be taken within eight hours to return the pressure to normal.

Maintain a written record of the inspection and any action resulting from the inspection.

**Quarterly**

- Conduct a walk-around inspection of the entire system to search for leaks. If leaks in the system are detected, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

**Semi-annually**

- Conduct an internal inspection of the scrubber to search for signs of :
  1. Corrosion and erosion
  2. Solids deposits in packed beds or tray orifices
  3. Solids accumulation in mist eliminators
  4. Plugged or eroded spray nozzles

If any of these conditions exist, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

**Record Keeping and Reporting**

Maintenance and inspection records will be kept for five years and be available upon request.

**Quality Control**

- All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer's specifications.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 9B

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
9B	17	Electric Arc Furnace and Canopy Area	Scrap Steel & Castings	5 tons/hr	CE-20: Baghouse

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedence of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 97-A-972-S3  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.4 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 97-A-972-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf

Authority for Requirement: Iowa DNR Construction Permit 97-A-972-S3  
567 IAC 23.4(5)

Pollutant: NO<sub>x</sub>

Emission Limit(s): 0.5 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 97-A-972-S3

#### Emission Point Characteristics

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
9B	60	Unobstructed Vertical	61	130	44,600 scfm	97-A-972-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate

may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### **Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

#### **Stack Testing:**

Pollutant – PM<sub>10</sub>

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – 201A with 202, 40 CFR 51<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

Pollutant – Particulate Matter

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?    Yes ☒    No ☐**

**Facility Maintained Operation & Maintenance Plan Required?    Yes ☐    No ☒**

## **Baghouse Agency Operation and Maintenance Plan**

### **Monitoring Guidelines**

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation, and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement.

If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates

compliance with emission limits, new indicator ranges must be set for monitoring, and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, the facility must submit a compliance schedule to the department within 60 days of obtaining test results. This schedule should outline the corrective action planned by the facility, and also include a plan to demonstrate compliance once corrective measures have been completed.

### **General**

- Periodic Monitoring is not required during periods of time greater than one day in which the source does not operate.

### **Weekly**

- Visible emissions shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed this would be an exceedence not a violation and action will be taken as soon as possible, but no later than eight hours. If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately two-hour intervals throughout the day. If unsuccessful that day due to weather, an observation shall be made the following day.
- Check and document the baghouse pressure drop. If the pressure drop falls out of the normal operating range, (3 – 15 inches water), corrective action will be taken within 8 hours to return the pressure drop to normal.

Maintain a written record of the observation and any action resulting from the observation.

### **Monthly**

- Check the cleaning sequence of the baghouse.
- Pulse jet baghouse - check the air delivery system
- Check the hopper functions and performance.
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

### **Quarterly**

- Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.)
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse.

Maintain a written record of the inspection and any action resulting from the inspection.

### **Semiannual**

- Every six months, inspect all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.



- If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

### **Record Keeping and Reporting**

Maintenance and inspection records will be kept for five years and be available upon request.

### **Quality Control**

- The filter equipment will be operated and maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts shall be kept.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 10A – 10E

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
10A	14	Mold Making	Sand	48 tons/hr
	20	Ladle Preheat	Natural Gas	0.0177 MMcf/hr
	21	Pouring	Metal	6 tons/hr
	21A	Cooling	Metal	6 tons/hr
	26	Burn Rail	Metal	6 tons/hr
10B	14	Mold Making	Sand	48 tons/hr
	20	Ladle Preheat	Natural Gas	0.0177 MMcf/hr
	21	Pouring	Metal	6 tons/hr
	21A	Cooling	Metal	6 tons/hr
	26	Burn Rail	Metal	6 tons/hr
10C	14	Mold Making	Sand	48 tons/hr
	20	Ladle Preheat	Natural Gas	0.0177 MMcf/hr
	21	Pouring	Metal	6 tons/hr
	21A	Cooling	Metal	6 tons/hr
	26	Burn Rail	Metal	6 tons/hr
10D	14	Mold Making	Sand	48 tons/hr
	20	Ladle Preheat	Natural Gas	0.0177 MMcf/hr
	21	Pouring	Metal	6 tons/hr
	21A	Cooling	Metal	6 tons/hr
	26	Burn Rail	Metal	6 tons/hr
10E	14	Mold Making	Sand	48 tons/hr
	20	Ladle Preheat	Natural Gas	0.0177 MMcf/hr
	21	Pouring	Metal	6 tons/hr
	21A	Cooling	Metal	6 tons/hr
	26	Burn Rail	Metal	6 tons/hr

## Applicable Requirements

### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from each emission point shall not exceed the levels specified below.*

EP	EU	Pollutant	Emission Limit	Authority for Requirement	
				567 IAC	Iowa DNR Construction Permit
10A	14	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-228-S2
	20				
	21	PM <sub>10</sub>	0.73 lb./hr	-	01-A-228-S2
	21A				
	26	PM	0.05 gr./scf	23.4(6)	01-A-228-S2
10B	14	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-229-S2
	20				
	21	PM <sub>10</sub>	0.73 lb./hr	-	01-A-229-S2
	21A				
	26	PM	0.05 gr./scf	23.4(6)	01-A-229-S2
10C	14	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-230-S2
	20				
	21	PM <sub>10</sub>	0.73 lb./hr	-	01-A-230-S2
	21A				
	26	PM	0.05 gr./scf	23.4(6)	01-A-230-S2
10D	14	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-231-S2
	20				
	21	PM <sub>10</sub>	0.73 lb./hr	-	01-A-231-S2
	21A				
	26	PM	0.05 gr./scf	23.4(6)	01-A-231-S2
10E	14	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-232-S2
	20				
	21	PM <sub>10</sub>	0.73 lb./hr	-	01-A-232-S2
	21A				
	26	PM	0.05 gr./ scf	23.4(6)	01-A-232-S2

<sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

### **Operational Limits & Requirements**

*The owner/operator of each emission unit shall comply with the operational limits and requirements listed below.*

#### **Process throughput:**

- The throughput for EU 14 (Mold Making) shall not exceed 12.0 tons of sand per hour. (Note: This limit is based on the throughput from the initial compliance tests conducted on May 24 - 25, 2001.)

#### **Reporting & Record keeping:**

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

- The hourly sand throughput of EU 14. (Note: This may be calculated by the facility by dividing the total amount of sand used per day for this emission unit by the hours of operation for the emission unit on that day.)

Authority for Requirement: Iowa DNR Construction Permit 01-A-228-S2  
Iowa DNR Construction Permit 01-A-229-S2  
Iowa DNR Construction Permit 01-A-230-S2  
Iowa DNR Construction Permit 01-A-231-S2  
Iowa DNR Construction Permit 01-A-232-S2

### **Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate (scfm)	
10A	45	Unobstructed Vertical	68	70	54,100	01-A-228-S2
10B	45	Unobstructed Vertical	68	70	54,100	01-A-229-S2
10C	45	Unobstructed Vertical	68	70	54,100	01-A-230-S2
10D	45	Unobstructed Vertical	68	70	54,100	01-A-231-S2
10E	45	Unobstructed Vertical	68	70	54,100	01-A-232-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the

emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### **Periodic Monitoring Requirements**

*The owner/operator of each emission point shall comply with the monitoring requirements listed below.*

#### **Stack Testing:** Test 2 of the 5 emission units

Pollutant – PM<sub>10</sub>

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – 201A with 202, 40 CFR 51<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

Pollutant – Particulate Matter

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

*The owner of each emission point or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?**

Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?**

Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 11FUG

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
11FUG	36	Special Products Grinding	Castings	0.83 ton/hr
	37	Weld Stations	Weld Wire	525.6 tons/yr

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 3.62 lbs./hr<sup>(1)</sup>

<sup>(1)</sup> based on a process weight rate of 0.83 ton/hr

Authority for Requirement: 567 IAC 23.3(2)"a"

#### Compliance Plan

*The owner/operator of this equipment shall comply with the applicable requirements listed below.*

With the exception(s) listed below, this point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, this source shall comply with such requirements in a timely manner.

#### **Exception(s):**

When Iowa DNR construction permit 01-A-181-S1 was applied for and written, EU 31 and 37 (Kwik Arc and Weld Stations, respectively) vented through emission point EP 17. As a result of the Title V review process, it was determined that EU 37 no longer vents through emission point EP 17. It now vents through this emission point, EP 11FUG. For this emission point to come into compliance, the permittee shall meet condition(s) below.

#### **Condition(s):**

The permittee shall either:

1. Apply for a construction permit from the Iowa DNR within thirty (30) days of the issuance date of this permit (September 3, 2004); **OR**
2. Submit documentation that this emission source meets one of the construction permit exemptions listed under 567 IAC 22.1(2). This documentation shall be submitted to

the Iowa DNR within thirty (30) days of the issuance of this permit. (September 3, 2004)

This point will be in compliance at the time either a construction permit is issued, or Iowa DNR reviews and confirms that the unit meets one of the construction permit exemptions.

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?**      Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 12

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
12	22	Shakeout	Reclaim Sand	15 tons/hr	CE-05: Baghouse
	27	Sand Transfer	Reclaim Sand	12.5 tons/hr	
	28	Sand Conditioner	Reclaim Sand	12.5 tons/hr	
	35	Turntable Blast	Castings	1 ton/hr	

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S3  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 1.42 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr./scf

Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S3  
567 IAC 23.4(6)

Pollutant: VOC

Emission Limit(s): 6.5 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S3

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### Process throughput:

- The total sand throughput for emission units 22, 27, and 28 shall not exceed 12,000 pounds of sand per hour.



**Reporting & Record keeping:**

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

- The total hourly sand throughput of emission units 22, 27, and 28. (Note: This may be calculated by the facility by dividing the total amount of sand used per day for these emission units by the hours of operation for the emission units on that day.)

Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S3

**Compliance Plan**

*The owner/operator of this equipment shall comply with the applicable requirements listed below.*

With the exception(s) listed below, this point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, this source shall comply with such requirements in a timely manner.

**Exception(s):**

The stack opening listed in construction permit 76-A-098-S2 is incorrect. The actual stack opening is 35.5 inches, circular diameter. For this emission point to come into compliance, a supplemental construction permit is required.

**Condition(s):**

The permittee shall apply for a supplemental construction permit from the Iowa DNR within thirty (30) days of the issuance date of this permit (September 3, 2004). This point will be in compliance at the time the supplemental construction permit for the unit venting through this point is issued.

**Emission Point Characteristics**

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
12	75	Unobstructed Vertical	40 x 39	80	20,800 scfm	76-A-098-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the

emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### **Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

#### **Stack Testing:**

Pollutant – PM<sub>10</sub>

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – 201A with 202, 40 CFR 51<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

Pollutant – Particulate Matter

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☒ No ☐

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☐ No ☒

## **Baghouse Agency Operation and Maintenance Plan**

### **Monitoring Guidelines**

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation, and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement.

If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates

compliance with emission limits, new indicator ranges must be set for monitoring, and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, the facility must submit a compliance schedule to the department within 60 days of obtaining test results. This schedule should outline the corrective action planned by the facility, and also include a plan to demonstrate compliance once corrective measures have been completed.

### **General**

- Periodic Monitoring is not required during periods of time greater than one day in which the source does not operate.

### **Weekly**

- Visible emissions shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed this would be an exceedence not a violation and action will be taken as soon as possible, but no later than eight hours. If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately two-hour intervals throughout the day. If unsuccessful that day due to weather, an observation shall be made the following day.
- Check and document the baghouse pressure drop. If the pressure drop falls out of the normal operating range, (2 – 6 inches water), corrective action will be taken within 8 hours to return the pressure drop to normal.

Maintain a written record of the observation and any action resulting from the observation.

### **Monthly**

- Check the cleaning sequence of the baghouse.
- Pulse jet baghouse - check the air delivery system
- Check the hopper functions and performance.
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

### **Quarterly**

- Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.)
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse.

Maintain a written record of the inspection and any action resulting from the inspection.

### **Semiannual**

- Every six months, inspect all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.

- If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

### **Record Keeping and Reporting**

Maintenance and inspection records will be kept for five years and be available upon request.

### **Quality Control**

- The filter equipment will be operated and maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts shall be kept.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 14 (Vent inside the building)

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
14	23	Large Casting Shakeout	Castings	2 tons/hr	CE-06: Baghouse
	24	Tumbler 70 cu ft	Castings	23.2 tons/hr	

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr./dscf

Authority for Requirement: 567 IAC 23.4(6)

#### Compliance Plan

*The owner/operator of this equipment shall comply with the applicable requirements listed below.*

With the exception(s) listed below, this point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, this source shall comply with such requirements in a timely manner.

#### **Exception(s):**

This source was constructed in 1993, and vents internally. Due to recent procedural changes by the DNR, the Department is now requiring most indoor venting equipment to either be permitted or covered by an exemption. As a result of this change, for this emission point to come into compliance the permittee shall meet the following condition(s).

#### **Condition(s):**

The permittee shall either:

1. Apply for a construction permit from the Iowa DNR within thirty (30) days of the issuance date of this permit (September 3, 2004); **OR**
2. Submit documentation that this emission source meets one of the construction permit exemptions listed under 567 IAC 22.1(2). This documentation shall be submitted to the Iowa DNR within thirty (30) days of the issuance of this permit (September 3, 2004).

This point will be in compliance at the time either a construction permit is issued, or Iowa DNR reviews and confirms that the unit meets one of the construction permit exemptions.

**Periodic Monitoring Requirements**

*The owner/operator of each emission point shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?**      Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 15

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
15	25	Tumbler (34 cu ft)	Castings	25 tons/hr	CE-07: Baghouse

### Applicable Requirements

#### **Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 1.78 lb./hr<sup>(1)</sup>

<sup>(1)</sup> based on a process weight rate of 575 lbs./hr.

Authority for Requirement: Iowa DNR Construction Permit 76-A-099  
567 IAC 23.3(2)"a"

#### **Compliance Plan**

*The owner/operator of this equipment shall comply with the applicable requirements listed below.*

With the exception(s) listed below, this point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, this source shall comply with such requirements in a timely manner.

#### **Exception(s):**

The process weight rate used in construction permit 76-A-099 was based on the amount of abrasive consumed. However, more recent emission factors are based on casting throughput. In order to more accurately reflect the emissions from this point, the particulate matter emission limit will need to be reevaluated. For this emission point to come into compliance, a supplemental construction permit is required.

#### **Condition(s):**

The permittee shall apply for a supplemental construction permit from the Iowa DNR within thirty (30) days of the issuance date of this permit (September 3, 2004). This point will be in compliance at the time the supplemental construction permit for the unit venting through this point is issued.

### **Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

#### **Stack Testing:**

Pollutant – Particulate Matter

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)



## Emission Point ID Number: 17

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
17	31	Kwik Arc and Weld Stations	Carbon Rod	5 tons/yr*	CE-09: Baghouse

### Applicable Requirements

#### **Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 01-A-181-S2  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.11 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-181-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr./dscf

Authority for Requirement: Iowa DNR Construction Permit 01-A-181-S2  
567 IAC 23.4(6)

#### **Compliance Plan**

*The owner/operator of this equipment shall comply with the applicable requirements listed below.*

With the exception(s) listed below, this point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, this source shall comply with such requirements in a timely manner.

#### **Exception(s):**

When Iowa DNR construction permit 01-A-181-S1 was applied for and written, EU 31 and 37 (Kwik Arc and Weld Stations, respectively) vented through this emission point, EP 17. As a result of the Title V review process, it was determined that EU 37 no longer vents through this emission point. It now vents through emission point EP 11FUG. For this emission point to come into compliance, a supplemental construction permit is required.

**Condition(s):**

The permittee shall apply for a supplemental construction permit from the Iowa DNR within thirty (30) days of the issuance date of this permit (September 3, 2004). This point will be in compliance at the time the supplemental construction permit for the unit venting through this point is issued.

**Emission Point Characteristics**

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
17	25	Unobstructed Vertical	29.9	80	8,800 scfm	01-A-181-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Stack Testing:**

Pollutant – PM<sub>10</sub>

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – 201A with 202, 40 CFR 51<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

Pollutant – Particulate Matter

Stack Test – Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 18-1 – 18-6 (Casting Heat Treat)

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
18-1	32	Casting Heat Treat (Oven #6511)	Natural Gas	7 MMBtu/hr
18-2		Casting Heat Treat (Oven #6511)	Natural Gas	7 MMBtu/hr
18-3	32	Casting Heat Treat (Oven #6513)	Natural Gas	7 MMBtu/hr
18-4		Casting Heat Treat (Oven #6513)	Natural Gas	7 MMBtu/hr
18-5	32	Casting Heat Treat (Oven #6514)	Natural Gas	7 MMBtu/hr
18-6		Casting Heat Treat (Oven #6514)	Natural Gas	7 MMBtu/hr
50-8	44	Casting Heat Treat (Oven #6515)	Natural Gas	4.9 MMBtu/hr

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from each emission point shall not exceed the levels specified below.*

EP	EU	Pollutant	Emission Limit	Authority for Requirement	
				567 IAC	Iowa DNR Construction Permit
18-1	32	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-219-S2
		PM <sub>10</sub>	0.056 lb/hr	---	01-A-219-S2
		PM	0.1 gr/scf	23.3(2)"a"	01-A-219-S2
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"	01-A-219-S2
		NOx	0.70 lb/hr	---	01-A-219-S2
18-2	32	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-220-S2
		PM <sub>10</sub>	0.056 lb/hr	---	01-A-220-S2
		PM	0.1 gr/scf	23.3(2)"a"	01-A-220-S2
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"	01-A-220-S2
		NOx	0.70 lb/hr	---	01-A-220-S2
18-3	32	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-221-S2
		PM <sub>10</sub>	0.024 lb/hr	---	01-A-221-S2
		PM	0.1 gr/scf	23.3(2)"a"	01-A-221-S2
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"	01-A-221-S2
		NOx	0.40 lb/hr	---	01-A-221-S2
18-4	32	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-222-S2
		PM <sub>10</sub>	0.024 lb/hr	---	01-A-222-S2
		PM	0.1 gr/scf	23.3(2)"a"	01-A-222-S2
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"	01-A-222-S2
		NOx	0.40 lb/hr	---	01-A-222-S2
18-5	32	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-223-S2
		PM <sub>10</sub>	0.024 lb/hr	---	01-A-223-S2
		PM	0.1 gr/scf	23.3(2)"a"	01-A-223-S2
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"	01-A-223-S2
		NOx	0.40 lb/hr	---	01-A-223-S2
18-6	32	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-224-S2
		PM <sub>10</sub>	0.024 lb/hr	---	01-A-224-S2
		PM	0.1 gr/scf	23.3(2)"a"	01-A-224-S2
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"	01-A-224-S2
		NOx	0.40 lb/hr	---	01-A-224-S2

EP	EU	Pollutant	Emission Limit	Authority for Requirement	
				567 IAC	Iowa DNR Construction Permit
50-8	44	Opacity	40% <sup>(1)</sup>	23.3(2)"d"	01-A-225-S3
		PM <sub>10</sub>	0.048 lb/hr	---	01-A-225-S3
		PM	0.1 gr/scf	23.3(2)"a"	01-A-225-S3
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"	01-A-225-S3
		NOx	0.35 lb/hr	---	01-A-225-S3

- <sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

### **Operational Limits & Requirements**

*The owner/operator of each emission unit shall comply with the operational limits and requirements listed below.*

#### **Process throughput:**

- These units shall operate on natural gas only.

Authority for Requirement: Iowa DNR Construction Permit 01-A-219-S2 (EP 18-1)  
Iowa DNR Construction Permit 01-A-220-S2 (EP 18-2)  
Iowa DNR Construction Permit 01-A-221-S2 (EP 18-3)  
Iowa DNR Construction Permit 01-A-222-S2 (EP 18-4)  
Iowa DNR Construction Permit 01-A-223-S2 (EP 18-5)  
Iowa DNR Construction Permit 01-A-224-S2 (EP 18-6)  
Iowa DNR Construction Permit 01-A-225-S3 (EP 50-8)

#### **Reporting & Record keeping:**

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

- Type of fuel used.

Authority for Requirement: 567 IAC 22.108(3)"b"

**Compliance Plan**

*The owner/operator of this equipment shall comply with the applicable requirements listed below.*

With the exception(s) listed below, this point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, this source shall comply with such requirements in a timely manner.

**Exception(s):**

The description for the Casting Heat Oven listed in construction permit 01-A-220-S1 is incorrect. The construction permits lists Oven #6511, when it should be #6512.

**Condition(s):**

The permittee shall apply for a supplemental construction permit from the Iowa DNR within thirty (30) days of the issuance date of this permit (September 3, 2004). This point will be in compliance at the time the supplemental construction permit for the unit venting through this point is issued.

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
18-1	45	Unobstructed Vertical	60	450	1,000 scfm	01-A-219-S2
18-2	45	Unobstructed Vertical	60	450	1,000 scfm	01-A-220-S2
18-3	45	Unobstructed Vertical	30	450	1,000 scfm	01-A-221-S2
18-4	45	Unobstructed Vertical	30	450	1,000 scfm	01-A-222-S2
18-5	35	Unobstructed Vertical	30	450	1,000 scfm	01-A-223-S2
18-6	35	Unobstructed Vertical	30	450	1,000 scfm	01-A-224-S2
50-8	44	Unobstructed Vertical	32	690	700 scfm	01-A-225-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Periodic Monitoring Requirements**

*The owner/operator of each emission point shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**

Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?**

Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 19

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
19	33	Walk-in Blasts (2)	Castings	2 tons/hr	CE-10: Baghouse
	34	Tumbler (72 cu ft)	Castings	2 tons/hr	

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 01-A-182-S2  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.17 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-182-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr./dscf

Authority for Requirement: Iowa DNR Construction Permit 01-A-182-S2  
567 IAC 23.4(6)

#### Emission Point Characteristics

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
19	25	Unobstructed Vertical	24	80	12,700 scfm	01-A-182-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.



**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?**      Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 20**

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
20	38A	Resin Bulk Storage Tanks	Pepset Resins	354.95 gallons/hr
	38B	Resin Bulk Storage Tanks	Pepset Resins	354.95 gallons/hr

**Applicable Requirements****Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this equipment shall not exceed the levels specified below.*

No emission limits at this time.

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 21 (Vents Inside Building)**

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
21	40	Pattern Shop – Wood Saws	Wood	20 lbs./hr	CE-11: Gravity Collector

**Applicable Requirements****Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr./dscf

Authority for Requirement: 567 IAC 23.4(6)

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**

Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?**

Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 23 (Vents Inside Building)**

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
23	43	Hawkeye Heating	Natural Gas	0.02 MMcf/hr

**Applicable Requirements****Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this equipment shall not exceed the levels specified below.*

EP	EU	Pollutant	Emission Limit	Authority for Requirement
				567 IAC
23	43	Opacity	40%	23.3(2)"d"
		PM	0.1 gr/scf	23.3(2)"a"
		SO <sub>2</sub>	500 ppmv	23.3(3)"e"

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 25 (SCC Internal Exhausts)**

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
25	46	Weld Repair	Weld Wire & Rods	0.21 ton/hr	CE-25: Torit Collectors
	49	Walk-In Blast	Castings	2.52 tons/hr	
	51	Casting Welding	Weld Wire	0.03 ton/hr	

**Applicable Requirements****Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)**

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 01-A-227  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.26 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-227

Pollutant: Particulate Matter

Emission Limit(s): 0.05 gr./dscf

Authority for Requirement: Iowa DNR Construction Permit 01-A-227  
567 IAC 23.4(6)

### **Emission Point Characteristics**

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
25	72	Unobstructed Vertical	36	75	40,000 scfm	01-A-227

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### **Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

#### **Stack Testing:**

Pollutant – PM<sub>10</sub>

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – 201A with 202, 40 CFR 51<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement – 567 IAC 22.108(3)"b"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 29

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
29	39	Core Spray Booth	Core Wash	100 lbs./hr	CE-13: Baghouse

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedance of an indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S2  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.12 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.01 gr./dscf

Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S2  
567 IAC 23.4(13)

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

- This emission unit shall not use more than 210,000 pounds of core coating slurry per 12-month rolling period.



**Reporting & Record keeping:**

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

- The annual amount of core coating slurry used (in lbs/yr) on a rolling-12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S2

**Emission Point Characteristics**

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
29	40	Obstructed Vertical	24	70	7,600 scfm	98-A-366-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Stack Testing:**

Pollutant – PM<sub>10</sub>

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – 201A with 202, 40 CFR 51<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement - 567 IAC 22.108(3)"b"

Pollutant – Particulate Matter

Stack Test - Demonstrate Compliance by August 3, 2006

Test Method – Iowa Compliance Sampling Manual<sup>(1)</sup>

<sup>(1)</sup> or an approved alternate method

Authority for Requirement - 567 IAC 22.108(3)"b"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 33

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
33	56	Mold Pouring	Metal	3,500 lbs./hr	CE-18: Torit Cartridge filter
	57	Mold Cooling	Metal	3,500 lbs./hr	
	58	Mold Shakeout	Metal	3,500 lbs./hr	
	63	Induction Furnace	Metal	4,400 lbs./hr	

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

<sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S3  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.21 lb./hr (Entire Stack: EU 56, 57, 58, and 63)

Emission Limit(s): 0.033 lb./hr (EU 63 only)

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S3

Pollutant: Particulate Matter

Emission Limit(s): 1.33 lb./hr, 0.05 gr./scf

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S3  
567 IAC 23.4(6)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 39.4 tons/year

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S3

Pollutant: Hydrogen Cyanide (HCN)

Emission Limit(s): 13.16 lbs./hr

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S3

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **Hours of operation:**

- Operation of emission units 56, 57, and 58 shall not exceed 2,500 hours per twelve (12) month rolling period (each).

#### **Process throughput:**

- The total melt from EU 63 shall not exceed 3,257 tons per twelve (12) month rolling period.
- The daily average melt of the induction furnace (EU 63) shall not exceed 2500 pounds per hour.
- The daily average production of the shell foundry (EU 56, 57 and 58) shall not exceed 300 pounds per hour.

#### **Reporting & Record keeping:**

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

- At the end of each month, record the number of hours of operation of EU 56, 57, and 58 (each) over the previous month.
- At the end of each month, record the number of hours of operation of EU 56, 57, and 58 (each) over the previous twelve (12) months.
- At the end of each month, record the total melt of EU 63 over the previous month.
- At the end of each month, record the total melt of EU 63 over the previous twelve (12) months.
- At the end of each workday, record the total amount of metal processed through the shell foundry (EU 56, 57, and 58) during that workday.
- At the end of each workday, record the number of hours the shell foundry (EU 56, 57, and 58) operated during that workday.
- At the end of each workday, calculate the daily average production rate of the shell foundry (EU 56, 57, and 58) in pounds per hour.
- At the end of each workday, record the total melt of the induction furnace (EU 63) during that workday.
- At the end of each workday, record the number of hours the induction furnace (EU 63) operated during that workday.
- At the end of each workday, calculate the daily average production rate of the induction furnace (EU 63) in pounds per hour.

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S3

**Emission Point Characteristics**

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
33	30	Unobstructed Vertical	50	90	59,000 scfm	97-A-659-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 34

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
34	48	Sand Tank #2	Silica Sand	35.62 ton/hr	CE-19: Dust Filter

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 20% <sup>(1)</sup>

<sup>(1)</sup> If visible emissions are observed other than startup, shutdown, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

Authority for Requirement: Iowa DNR Construction Permit 97-A-664  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./scf

Authority for Requirement: Iowa DNR Construction Permit 97-A-664  
567 IAC 23.3(2)"a"

#### Emission Point Characteristics

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
34	70	-	15	150	1,200 acfm	97-A-664

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### **Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

#### **Visible Emissions Monitoring**

Visible emissions shall be observed on a weekly basis to ensure that none occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity greater than 20% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: SCC01

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
SCC01	SCC01	Tumble Blast (70 cu ft)	Shot	40 lb /hr	CE-SCC01: Baghouse

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 02-A-656-S2  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.48 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 02-A-656-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.48 lb./hr, 0.05 gr./scf

Authority for Requirement: Iowa DNR Construction Permit 02-A-656-S2  
567 IAC 23.4(6)

#### Emission Point Characteristics

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
SCC01	44	Unobstructed Vertical	28 x 28	70	6,800 scfm	02-A-656-S2



The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Periodic Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: B2

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
B2	SCC Boiler	Boiler	Natural Gas	12.6 MMBtu/hr

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

<sup>(1)</sup> An exceedance of an indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S1  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 1.2 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb./MMBtu

Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S1  
567 IAC 23.3(2)"b"

Pollutant: SO<sub>2</sub>

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S1  
567 IAC 23.3(3)"e"

Pollutant: NO<sub>x</sub>

Emission Limit(s): 9.1 lb./hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S1

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

- This emission unit shall operate on natural gas only.

Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S1

Reporting & Record keeping:

Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

- This boiler is subject to 40 CFR 60 Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and Subpart A (General Provisions).
- In accordance with §60.48c(g), the permittee shall record and maintain records of the amounts of each fuel combusted during each day.

Authority for Requirement: 40 CFR 60 Subpart Dc  
567 IAC 23.1(2)"III"

Emission Point Characteristics

*This equipment shall conform to the specifications listed below.*

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate	
B2	32	Unobstructed Vertical	21	250	1,200 scfm	01-A-233-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: Fugitive Sources

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
04 FUG	05	Isocure Mixer	Reclaim Sand	4.65 tons/hr
	06	Airset Mixer	Reclaim Sand	4.65 tons/hr
08 FUG	16	Scrap & Charge Handling	Scrap Steel	7.00 tons/hr
24 FUG	45	Casting Grinding	Castings	3.30 tons/hr
	47	Casting Salvage	Castings	1.17 tons/hr
	50	Casting Grinding	Castings	0.97 tons/hr

### Applicable Requirements

#### Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

*The emissions from this equipment shall not exceed the following specified levels.*

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

#### Periodic Monitoring Requirements

*The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.*

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

### G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

### G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 901 N. 5th St., Kansas City, KS 66101. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

### G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

### G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the

identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

#### **G5. Semi-Annual Monitoring Report**

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

#### **G6. Annual Fee**

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
  - a. Form 1.0 "Facility Identification";
  - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
  - c. Form 5.0 "Title V annual emissions summary/fee"; and
  - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
  - a. Form 1.0 "Facility Identification";
  - b. Form 5.0 "Title V annual emissions summary/fee";
  - c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.

8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

**G7. Inspection of Premises, Records, Equipment, Methods and Discharges**

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

**G8. Duty to Provide Information**

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

**G9. General Maintenance and Repair Duties**

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

**G10. Recordkeeping Requirements for Compliance Monitoring**

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:

- a. The date, place and time of sampling or measurements
- b. The date the analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses; and
- f. The operating conditions as existing at the time of sampling or measurement.
- g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)

2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance



records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

#### **G11. Evidence used in establishing that a violation has or is occurring.**

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

- a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
- b. Compliance test methods specified in 567 Chapter 25; or
- c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

- a. Any monitoring or testing methods provided in these rules; or
- b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

#### **G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

#### **G13. Hazardous Release**

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

#### **G14. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process



equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1) ) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The facility at the time was being properly operated;

c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and

d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

#### **G15. Permit Deviation Reporting Requirements**

A deviation is any failure to meet a term, condition or applicable requirement in the permit.

Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

#### **G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations**

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

#### **G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification**

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

- a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
- b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
- c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
- d. The changes are not subject to any requirement under Title IV of the Act.
- e. The changes comply with all applicable requirements.
- f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
  - i. A brief description of the change within the permitted facility,
  - ii. The date on which the change will occur,
  - iii. Any change in emission as a result of that change,
  - iv. The pollutants emitted subject to the emissions trade
  - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
  - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
  - vii. Any permit term or condition no longer applicable as a result of the change.

*567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

#### **G18. Duty to Modify a Title V Permit**

##### **1. Administrative Amendment.**

- a. An administrative permit amendment is a permit revision that is required to do any of the following:

- i. Correct typographical errors
    - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
    - iii. Require more frequent monitoring or reporting by the permittee; or
    - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
  - b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
    - c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.
2. Minor Permit Modification.
- a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:
    - i. Do not violate any applicable requirements
    - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.
    - iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.
    - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;
    - v. Are not modifications under any provision of Title I of the Act; and
    - vi. Are not required to be processed as significant modification.
  - b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
    - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.
    - ii. The permittee's suggested draft permit
    - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and
    - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
  - c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this

change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. *567 IAC 22.111-567 IAC 22.113* The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.105(1)"a"(4)*

#### **G19. Duty to Obtain Construction Permits**

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. *567 IAC 22.1(1)*

#### **G20. Asbestos**

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when conducting any renovation or demolition activities at the facility. *567 IAC 23.1(3)"a", and 567 IAC 23.2*

#### **G21. Open Burning**

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

#### **G22. Acid Rain (Title IV) Emissions Allowances**

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

#### **G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

#### **G24. Permit Reopenings**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or



termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to June 25, 1993.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to June 25, 1993, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

## **G25. Permit Shield**

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

a. Such applicable requirements are included and are specifically identified in the permit; or

- b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- 2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
- 3. A permit shield shall not alter or affect the following:
  - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
  - d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

#### **G26. Severability**

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

#### **G27. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

#### **G28. Transferability**

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

#### **G29. Disclaimer**

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

#### **G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification**

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with an applicable requirement. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous



output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator  
Iowa DNR, Air Quality Bureau  
7900 Hickman Road, Suite #1  
Urbandale, IA 50322  
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

*567 IAC 25.1(7)"a", 567 IAC 25.1(9)*

### **G31. Prevention of Air Pollution Emergency Episodes**

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

*567 IAC 26.1(1)*

### **G32. Contacts List**

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits  
EPA Region 7  
Air Permits and Compliance Branch  
901 N. 5<sup>th</sup> Street  
Kansas City, KS 66101  
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite #1  
Urbandale, IA 50322  
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

**Field Office 1**

909 West Main – Suite 4  
Manchester, IA 52057  
(563) 927-2640

**Field Office 3**

1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

**Field Office 5**

401 SW 7<sup>th</sup> Street, Suite I  
Des Moines, IA 50309  
(515) 725-0268

**Polk County Planning & Development**

Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

**Field Office 2**

2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

**Field Office 4**

1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

**Field Office 6**

1023 West Madison Street  
Washington, IA 52353-1623  
(319) 653-2135

**Linn County Public Health Dept.**

Air Pollution Control Division  
501 13th St., NW  
Cedar Rapids, IA 52405  
(319) 892-6000

# **APPENDIX A**

## **DNR Air Quality Policy 3-b-08 Opacity Limits**